

REMARKS

Claims 1-27 are pending herein.

By this Amendment, claim 1 is amended to more fully clarify the subject matter therein and claims 1-18 are amended to remove "means" terminology.

No new matter is added by this Amendment. Support for the language added to claim 1 is found in the original specification, claims and Figures. In particular, support for the language added to claim 1 is found at, for example, Figure 1.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Cherubin in the July 27, 2004 interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

I. Allowable Subject Matter

Applicant would like to thank the Examiner for indicating that claims 9, 18 and 27 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

II. Rejection Under 35 U.S.C. §102(a)

Claims 1, 5, 8, 10, 14, 17, 19, 23 and 26 were rejected under 35 U.S.C. §102(a) as allegedly being anticipated by U.S. Patent No. 5,867,166 to Myhrvold et al. (hereinafter referred to as "Myhrvold"). This rejection is respectfully traversed.

Myhrvold describes a system and method for generating image data using gsprites. A gsprite is an image layer that can be composited with other image layers to form a display image. In particular, Figure 4A is a block diagram illustrating an image processing board 174 communicating with the host computer through a bus 146. The image processing board 174 includes a DSP 176, a tiler 200, a shared memory 216, a gsprite engine 204, a compositing buffer 210, and a digital-to-analog converter (DAC) 212. The bus 146 transfers commands and data between the host and the DSP 176. In response to commands from the host, the

image processing board 174 renders images and transfers display images to a display device 142 through the DAC 212. See col. 12, lines 39-49.

The compositing buffer 210 includes two 32 scan line color buffers which are toggled between display and compositing activities. The compositing buffer also includes a 32 scan line alpha buffer which is used to accumulate alpha for each pixel. Thus, the compositing buffer actually includes three buffers, two buffers for color processing and one buffer for accumulating alpha for each pixel. See col. 13, lines 18-22.

According to Myhrvold, the gsprite engine transforms the gsprite data and sends pixel data to the compositing buffer for display. The compositing buffer is preferably double buffered so that composited pixel data can be transferred from one buffer while pixel data is being composited in the other buffer. See col. 61, lines 14-17.

The Patent Office cites to col. 62, lines 14-22 of Myhrvold as allegedly describing an intermediate buffer and a frame buffer. However, the two buffers described in Myhrvold do not describe or suggest the intermediate and frame buffers of claims 1, 10 and 19 or any claims dependent therefrom.

As shown in Figure 4A, the gsprite engine 204 sends image data in the form of pixels to the compositing buffer 210 where the display pixel data is calculated. The citation on which the Patent Office relies describes how the two color buffers alternate between display and compositing activities. Using double-buffering, the process of transforming and compositing of pixels can occur simultaneously with the process of displaying a band (col. 62, lines 11-14). Thus, the two buffers of Myhrvold both perform display and compositing activities. In other words, if one buffer is conducting displaying activities then the other is conducting compositing activities and vice versa.

However, claims 1, 10 and 19 require an intermediate buffer drawing section which temporarily draws an image in an intermediate buffer in place of drawing the image in a

frame buffer. In addition, claims 1, 10 and 19 further require a frame buffer drawing section which draws the image from the intermediate buffer into the frame buffer.

Typically, the image of the object is drawn directly in the frame buffer. In the present application, the image is drawn in the frame buffer after it has temporarily been drawn in the intermediate buffer. Thus, by temporarily drawing the image in the intermediate buffer, various processes can be carried out. Such processes include a process of subjecting the image on the intermediate buffer to an image effect processing and then drawing the effect-processed image in the frame buffer, a process of performing various image synthesizing processings on the intermediate buffer and then drawing the processed image on the frame buffer, or a process of updating the images on the intermediate buffer for each frame rather than for all the frames. See page 17, lines 1-12 of the present application.

Nowhere does Myhrvold describe or suggest that the two color buffers of the compositing buffers interact or communicate with each other as in the present application. Further, nowhere does Myhrvold describe or suggest an intermediate buffer drawing section that temporarily draws an image in an intermediate buffer and a frame buffer drawing section which draws the image from the intermediate buffer into the frame buffer as required by claims 1, 10 and 19. Rather, Myhrvold is directed toward two buffers which perform alternating functions for passing data to the DAC 212.

For at least the foregoing reasons, Applicants respectfully submit that Myhrvold fails to anticipate the subject matter of claims 1, 10 and 19 or claims dependent therefrom.

Reconsideration and withdrawal of this rejection are respectfully requested.

III. Rejection Under 35 U.S.C. §103(a)

Claims 2-4, 6-7, 11-13, 15-16, 20-22 and 24-25 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Myhrvold in view of U.S. Patent No. 5,830,066 to Goden et al. (hereinafter referred to as "Goden"). This rejection is respectfully traversed.

As described above, Myhrvold fails to describe or suggest the recited elements of claims 1, 10 and 19. The Patent Office has relied on Goden for an image processing device in which the image object is texture mapped. However, even if Myhrvold and Goden were to have been combined as alleged by the Patent Office, the present invention still would not have been achieved because Goden does not remedy the deficiencies of Myhrvold as described above.

For the foregoing reasons, Applicant respectfully submits that Myhrvold and Goden, alone or in combination, would not have led one of ordinary skill in the art to the invention of claims 1, 10 and 19 or claims dependent therefrom.

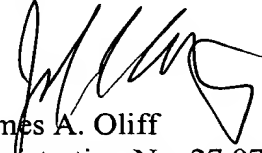
Reconsideration and withdrawal of this rejection are thus respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-27 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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JAO:LMS/hs

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